



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,776	09/15/2003	Steven Riedl	600179-002	1506
61834 7590 05/07/2010 Ostrow Kaufman & Frankl LLP Susan Formicola The Chrysler Building 405 Lexington Avenue, 62nd Floor NEW YORK, NY 10174				
EXAMINER CHORNESKY, ADAM B				
ART UNIT 3688		PAPER NUMBER		
NOTIFICATION DATE 05/07/2010		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sformicola@okflp.com

### Office Action Summary

**Application No.**

10/662,776

**Applicant(s)**

RIEDL ET AL.

**Examiner**

ADAM CHORNESKY

**Art Unit**

3688

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12, 14-20, 23-41, 43-50, 52 and 53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-20, 23-41, 43-50, 52 and 53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/20/2010 has been entered and a Non-Final Action follows.

**DETAILED ACTION**

2. The following is a Non-Final Office action in response to the Amendment filed on April 20, 2010. The Amendment cancelled Claims 13, 21, 22, 42, and 51; withdrew Claims 54-109; and amended Claims 1, 34, 43 and 44. Thus the currently pending claims considered below are Claims 1-12, 14-20, 23-41, 43-50, 52 and 53.

***Claim Rejections - 35 USC § 112***

3. Claims 1-12, 14-23 and [[34-44]] 43-44 were previously cited under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Applicant has pointed out that "... the Examiner's rejection of independent claim 34 and dependent claims 35-41 under 35 U.S.C. § 112, second paragraph ... do not claim dependency from either claims 1 or 43, nor do the claims recite the accused indefinite language." The Examiner observes that the rejection of claims 34-44 was a typographical error that should have recited "claims 43-44." Reading further

into the prior rejection, the Examiner correctly observed that "..., in independent claim 43, line 5, "properly zoned" is indefinite." In view of the current amendments to claims 1 and 43, the Examiner hereby withdraws the prior rejection.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 24-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Eldering et al. (US PgPub 20020123928 A1).

Claim 24: Eldering discloses a method for delivering local advertising to a client in a video distribution system, the method comprising:

performing an action that invokes a request for a program (paragraph [0090] via TV transactions are not limited to broadcast and cable television but may include pay per view (PPV), video on demand (VOD), near VOD (NVOD), or other video that may be delivered over a television access network);

collecting information regarding the request (paragraph [0090] via the viewing characteristics database 610 may receive data from a TV viewing characteristics database 612 and an Internet viewing characteristics database 614);

generating a playlist utilizing a correctly geographically zoned local advertisement and the requested program (paragraph [0156] via the querying of a database to obtain information about a target group using the correlation of an ad characteristic with a particular group identified by zip code, area code, town, cable node. Group IDs may be utilized to determine applicability of an ad to a particular group, with the basis for the grouping being geographic, demographic, socioeconomic, or through another grouping mechanism; and paragraph [0061] and figure 31 via an exemplary mapping of subscriber to elements of the cable television (CTV) system; and paragraph [0084] via numerous characteristics by which subscribers can be grouped, including but not limited to geographic, demographic, psychological, psychographic, socio-cultural, viewing habits, purchase habits, Internet surfing habits, interests and hobbies; and paragraph [0091] via each subscriber will not be identified by personal information, such as name, but instead will be identified by some unique identification, which may include but it not limited to customer number, media access control (MAC) ID, and Internet protocol (IP) address; paragraph [0159] and figures 30 and 31 via the subscribers 3030 may be grouped by head-end (subzone) 3010, node (microzone) 3020 or branch 3040; regardless of how the subscribers 3030 are grouped it is necessary for there to be a correlation between each subscriber 3030, their respective profile, and each head-end 3010, node 3020 or branch 3040 respectively; FIG. 31 illustrates an exemplary table correlating subscribers S1-S4 of FIG. 30, with their MAC-ID; paragraphs [0158]-[0160] and figures 30 and 31 via a typical cable television (CTV) hierarchy consisting of a zone or super head-end 3000 that receives national programming and distributes the national programming to a plurality of head-ends 3010; each HE 3010 serves an umber of nodes 2030; each node servers a plurality of subscribers 3030; the subscribers 3030 may be

grouped by head-end (subzone) 3010, node (microzone) 3020 or branch 3040 and it is necessary for there to be a correlation between each subscriber 3030, their respective profile, and each head-end 3010, node 3020 or branch 3040; Fig. 31 illustrates an exemplary table correlating subscribers S1-S4 of FIG. 30, with their MAC-ID, a profile, and the subzone (head-end) 3000, node (microzone) 3020, and branch 3040 that are connected to within the CTV system [the Examiner construes the zones, microzones, nodes, MAC addresses of Eldering as also mapping to geographical location, since these forms of addressing can also be traced back to geographical location through a database lookup table]); and

determining whether the geographically zoned local advertisement has expired and replacing an expired geographically zoned local advertisement with a replacement advertisement (paragraph [0122] and figures 18-20 via based on the type of programs viewed, times watched, channel change patterns, volume levels or other subscriber activities the heuristic rules could define the probability of a subscriber eating fast food, the type of ads they are receptive to (i.e., emotional, funny, abrasive), or the probability of the subscriber paying for a particular service (i.e., car or house cleaning, oil change) as opposed to doing it themselves [the Examiner construes the term "times watched" to include time of day/night intervals as well as how frequently a particular program is watched in order to determine when to place a particular advertisement]; and paragraph [0184] via in addition to the ads it is likely that an ad queue defining some characteristics of when ads should displayed is also sent to the PVR and stored thereon; based on the ad queues the ads would be substituted during avails [the Examiner construes the recitation of "... an ad queue defining sum characteristics of when ads should be displayed ..." as a determination of when to place a particular ad]; paragraph [0086] and figure 5

via a secure correlation server creates presentation streams that have the same programming but include targeted advertisements in place of the default advertisement [the Examiner construes the action of the secure correlation server as the expiring of the default advertisement in favor of the selected targeted advertisement]); and

delivering the local advertising and program to a client for decoding and playback (paragraph [0161] via ads may be targeted to the subscribers within the subzone based on the subzone profile).

Claim 25: Eldering discloses all the elements of Claim 24 and further discloses wherein collecting information comprises collecting client information (abstract via monitoring subscriber viewing interactions, such as television viewing interactions, and generating viewing characteristics therefrom).

Claim 26: Eldering discloses all the elements of Claim 25, and further discloses wherein collecting information comprises collecting program information (paragraphs [0093] and [0094] and figure 7 via information related to the source material 720, such as ... program data 726 ...).

Claim 27: Eldering discloses all the elements of Claim 24, and further discloses wherein the client performs an action that invokes the request (paragraph [0090] and figures 5 and 6 via a TV viewing characteristics database 612 and an Internet viewing characteristics database 614 where each of these databases may receive transaction data from a TV transaction database 616 and an Internet transaction database 618 respectively).

Claim 28: Eldering discloses all the elements of Claim 24, and further discloses the invention comprising recording one copy of a given program for each local advertising zone that the video distribution system services (paragraph [0085] and figure 5 via an exemplary system for grouping TV subscribers into subgroups and delivering targeted ads consisting of content providers 510, national advertisers 520, local advertisers 530, a Secure Correlation Server.TM. (SCS) 540, a Secure Profiling System (SPS) 550, a network operator, an access network and subscribers 580; where the national advertiser 520 delivers national ads 522 to the content providers 510 and the content providers 510 generate and deliver program streams 515, and then delivered to the SCS 540; the SCS 540 also receives additional national ads 524 and local ads 526 from the national advertiser 520, and local ads 535 from the local advertisers 530. The SCS 540 also receives subscriber profiles 555 from the SPS 550).

Claim 29: Eldering discloses all the elements of Claim 28, and further discloses the invention comprising segmenting local advertising out of each program copy and marking each segmented program copy with a zone identifier (paragraph [0078] via subscribers are divided into subgroups, and different ads are targeted to each subgroup).

Claim 30: Eldering discloses all the elements of Claim 29, and further discloses wherein collecting information comprises collecting a zone identifier for the zone from which the request originates (paragraphs [0110]-[0112] and figure 6 via the purchasing characteristics database 620 may receive input from a variety of sources including, but not limited to, point of sale purchase



characteristics 622, Internet purchase characteristics 624, phone purchase characteristics 626, and mail order purchase characteristics 628; and transaction characteristics database 630 may receive input related to a variety of transaction characteristics including but not limited to credit card transaction characteristics 632, phone transaction characteristics 634, banking transaction characteristics 636 and location transaction characteristics 638).

Claim 31: Eldering discloses all the elements of Claim 29, and further discloses wherein the segmenting is performed by identifying indicators for local advertising (paragraph [0085] and figure 5 via grouping TV subscribers into subgroups and delivering targeted ads, and the SCS 540 determines which ads (additional national ads 524, local ads 526, 535) should be substituted (targeted) for the ad (default ad) within the program stream 515 and which subscribers 580 should receive which ads).

### *Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-12, 14, 15, 17-20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hooks et al. (US Pat 6169542 B1) in view of Eldering et al. (US PgPub 20020123928 A1) and Liga et al. (US PgPub 20030154128 A1).

Claim 1: Hooks discloses a system for creating a program for delivery to a client in a video time shifting architecture, the system comprising:

an advertisement selection system (ADS) operative to select one or more advertisements according to address data associated with the client and transmit one or more identifiers that uniquely identify the selected advertisements (col. 4, lines 9-11 via editing facility 28 generates advertisements or receives pre-recorded advertisements which are inserted into the original program; and col. 2, lines 51-63 and figures 5 and 8 via editing facility 28 generates advertisements or receives pre-recorded advertisements which are inserted into the original program);

but Hooks only discloses in part wherein advertisements are selected according to address data associated with the client (col. 7, line 59 through col. 8, line 7 and Fig. 4 via a block diagram of the components of one of the interactive video subscriber units 22 at a subscriber location ... the subscriber provides the user input at set-top box 94 through key-presses at subscriber interface 96; the key-presses are detected at set-top box 94 and sent to head end facility 54; and col. 12, lines 35-43 via when entry 154 is received, program control proceeds to a task 170; task 170 causes processor 74 to forward a purchase order through modem bank 82 (FIG. 1), and PSTN 84 (FIG. 1), to commercial enterprise 86 (FIG. 1); the purchase order may be in the form of an electronic mail (e-mail) message to commercial enterprise 86 containing information regarding the subscriber, such as mailing address, telephone number, charge card number, and so forth; and col. 14, lines 28-45 via the interactive programming techniques allow a subscriber to selectively obtain supplementary advertising information related to a viewed advertisement in the form of links to data stored in memory at the head end facility, hyperlinks to

the Internet, and purchase option capability; moreover, the supplementary advertising information is received through a subscriber's television, eliminating the need for remembering or writing down telephone numbers and addresses in order to call, send a letter, or access a separate computer system to obtain supplementary advertising information.).

Eldering teaches in paragraph [0061] and figure 31 an exemplary mapping of subscriber to elements of the cable television (CTV) system. Eldering also teaches in paragraph [0084] numerous characteristics by which subscribers can be grouped, including but not limited to geographic, demographic, psychological, psychographic, socio-cultural, viewing habits, purchase habits, Internet surfing habits, interests and hobbies. In paragraph [0091], Eldering teaches that each subscriber will not be identified by personal information, such as name, but instead will be identified by some unique identification, which may include but it not limited to customer number, media access control (MAC) ID, and Internet protocol (IP) address. Eldering further teaches in paragraph [0159] and figures 30 and 31 that the subscribers 3030 may be grouped by head-end (subzone) 3010, node (microzone) 3020 or branch 3040. Regardless of how the subscribers 3030 are grouped it is necessary for there to be a correlation between each subscriber 3030, their respective profile, and each head-end 3010, node 3020 or branch 3040 respectively. FIG. 31 illustrates an exemplary table correlating subscribers S1-S4 of FIG. 30, with their MAC-ID.

Therefore, from the teaching of Eldering it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the graphical hot links of Hooks to include the mapping of subscribers to elements of the CTV system, geographic grouping, internet protocol addresses, zone identification, etc. of Eldering in order to group

subscribers together based on various criteria including, but not limited to geographic proximity, nodes, microzones, etc. (Eldering paragraph [0023]).

Hooks further discloses an advertisement management system (AMS) operative to generate a playlist that identifies content, including a user requested program stored in the video time shifting architecture and the one or more selected advertisements, the AMS being further operative to determine whether the one or more selected advertisements have expired and to request one or more replacement advertisements for the one or more selected advertisements that have expired (col. 2, lines 37-63 and Fig. 1 via transmitting an advertisement to an interactive video subscriber unit in connection with an interactive video program and receiving, at the head end facility over a return path, a request to register the advertisement in a menu ... generating an entry for the advertisement in the menu, communicating to the subscriber unit, the menu in a video still image, and obtaining, at the head end facility over the return path, a selection request for the entry [the Examiner construes relevant components of the head-end facility 58, e.g. the processor 74, web browser 90, menu database 79, modem bank 82, PSTN 84, etc. to be the AMS (advertising management system), and the replacement process to consist of subscribers adding and removing menu items from the menu database]);

However, Hooks does not disclose the AMS being further operative to determine whether the one or more selected advertisements have expired

Liga teaches in *Abstract* a method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer. Liga then teaches in paragraph [0009] a method and system to freshen or replace stale advertising. An advertisement may be encoded or embedded with a hidden time or date stamp indicating when an advertisement expires. As the

PVR [personal video recorder] plays back a recorded video signal, it may check the embedded information before an advertisement is actually shown. Should the embedded stamp indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Liga further teaches in paragraph [0024] the freshening or replacement of stale advertising. Each advertisement may again be encoded or embedded with hidden information. In this embodiment, the hidden information is typically a time or date stamp indicating when an advertisement expires. As the PVR plays back a recorded video signal, it may check the embedded information as each advertisement is queued for playback. Should the embedded information indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Updated advertisements may either be requested from and transmitted by a server located at a cable headend or other transmission source, or may be stored locally on the PVR itself.

Therefore, from the teaching of Liga it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of delivering advertising through an interactive video distribution system of Hooks to include the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga in order to provide an improved method and system for displaying advertisements in conjunction with a personal video recorder (Liga paragraph [0005]); and

Eldering teaches in paragraph [0086] and figure 5 that the Secure Correlation Server (SCS 540) creates presentation streams 545 that have the same programming but targeted ads in place of the default ad.

Therefore, from the teaching of Eldering it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of delivering advertising through an interactive video distribution system of Hooks and the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga to include the targeted advertisement insertion performed by the Secure Correlation Server of Eldering in order for subscribers to receive ads that are more likely applicable to their life style, allow content providers to charge advertisers a premium for delivering targeted ads, and save money for advertisers because they only pay to deliver the ads to subscribers that most likely are interested in the ad (Eldering paragraph [0024]); and

Hooks then discloses a video server operative to interpret the playlist and deliver the content to the user (col. 7, lines 5-15 and figure 1 via video server 60 multiplexes these two inputs with other optional video inputs, typically through modulation into different frequency bands, and outputs a broadband signal to video distribution medium 56).

Claim 2: Hooks, Eldering and Liga disclose all the elements of Claim 1 and Hooks further disclose wherein the AMS generates a playlist that identifies a given one of the one or more selected advertisements as a bumper advertisements for delivery by the video server prior to the user requested program (col. 7, lines 16-22 and figures 1 and 2 via audio-to-data decoder 72 recognizes the audio tones recorded on synchronization channel 44 and generates the corresponding ASCII data codes 38 and couples to processor 74).

Claim 3: Hooks, Eldering and Liga disclose all the elements of Claim 1 and Hooks further discloses wherein the AMS generates a playlist that identifies a given one of the one or more selected advertisements as a pause teaser advertisement for delivery by the video server upon receipt of a pause control command (col. 5, lines 51-57 and figures 1, 2 and 3 via when medium 30 is played from its beginning, program-specific data 50 are read and stored in a head end facility processor before full-motion program 36 begins).

Claim 4: Hooks, Eldering and Liga disclose all the elements of Claim 1 and Hooks further discloses wherein the AMS generates a playlist that identifies a given one of the one or more selected advertisements as a pause advertisement for delivery by the video server upon the receipt of a pause advertisement control command (col. 8, lines 62-63 and figure 4 via a logo 108 identifies first advertisement 40 as an interactive advertisement).

Claim 5: Hooks, Eldering and Liga disclose all the elements of Claim 1 and Hooks further discloses wherein the playlist is indexed according to Normal Play Time (NPT) (applicant defines normal play time in specification pg. 8, lines 7-18 as markers to delimit content within the playlist as per col. 4, lines 54-65 and figures 2 and 3 of Hooks via coordination between a full-motion program 36 recorded on recording medium 30 and exemplary ASCII data codes 38 also recorded on recording medium 30 to mark where advertisements are inserted at predetermined time periods).

Claim 6: Hooks, Eldering and Liga disclose all the elements of Claim 1 and Hooks further discloses wherein the video server is operative to receive a pause control command from a client, mark the location in the playlist that corresponds to a point in time when the video server receives the pause command and advance to an advertisement in the playlist (col. 11, lines 8-17 and figures 6 and 8 via advertisement identifiers for a number of advertisements that were registered in menu database 79).

Claim 7: Hooks, Eldering and Liga disclose all the elements of Claim 6 and Hooks further discloses wherein the client displays a pause video still overlay upon transmission of a pause control command (col. 9, lines 5-8 and figure 4 via the subscriber creates a registration request, for example, by pressing a color coded key on subscriber interface 96 or by pressing another designated key or keys on subscriber interface 96).

Claim 8: Hooks, Eldering and Liga disclose all the elements of Claim 7 and Hooks further discloses wherein the pause video still overlay comprises operating instructions (col. 11, lines 53-65 and figure 9 via interactive menu 150 includes an intrasystem link (MORE INFO) entry 152, a purchase option (PLACE ORDER) entry 154, a hyperlink (VISIT WEB SITE) entry 156, a delete advertisement from menu entry 158, and a return to advertisement menu entry 160).

Claim 9: Hooks, Eldering and Liga disclose all the elements of Claim 6 and Hooks further discloses wherein the video server advances to a pause teaser advertisement in the playlist and begins delivery of the pause teaser advertisement (col. 10, lines 57-63 and figures 1, 4 and 7



via the video still image is then communicated from video server 60 through video distribution medium 56 to set-top box 94).

Claim 10: Hooks, Eldering and Liga disclose all the elements of Claim 9 and Hooks further discloses the invention comprising delivering the pause teaser advertisement to the client for display (col. 10, lines 57-63 and figures 1, 4 and 7 via the video still image is then communicated from video server 60 through video distribution medium 56 to set-top box 94).

Claims 11 and 12: Hooks, Eldering and Liga disclose all the elements of Claim 6 and Hooks further discloses wherein the video server returns to the location in the playlist that corresponds to a point in time when the video server receives the pause command and commences delivery of the user requested program; and begins delivery of a pause advertisement in response to receipt of a pause advertisement control command. (col. 11, lines 8-17 and figures 6 and 8 via advertisement identifiers for a number of advertisements that were registered in menu database 79).

Claim 14: Hooks, Eldering and Liga disclose all the elements of Claim 1 and Hooks further discloses in part wherein the targeting algorithm operates the ADS selects the one or more selected advertisements on the basis of aggregate viewing information (col. 4, lines 9-12 via a head end facility configured to transmit an advertisement in connection with an interactive video program and receive a request from one of the subscriber units to register the advertisement in a menu [the Examiner construes this description as an exemplary single

instance over a cable television network and that this event occurs via multiple instances, hereby construed as the selection of the “one or more selected advertisements”]).

Claim 15: Hooks, Eldering and Liga disclose all the elements of Claim 14 and Hooks further discloses wherein the ADS comprises a connection to an external targeting system (col. 12, lines 59-65 and figures 1 and 7 via task 174 causes processor 74 to invoke web browser 90 from memory 78 to access a first web site 176 related to commercial enterprise 86).

Claim 17: Hooks, Eldering and Liga disclose all the elements of Claim 1 and Hooks further discloses wherein the ADS transmits advertisements and advertisement metadata to the AMS for storage in a content storage device (col. 3, lines 63-67 through col. 4, lines 1-8 and figure 1 via the editing facility 28 [where the Examiner construes the editing facility 28 and associated elements as the ADS or advertisement selection system of the current invention] produces programs on recordable media such as video cassette recorder (VCR) tape for use on the VCRs at the head end unit 54).

Claim 18: Hooks, Eldering and Liga disclose all the elements of Claim 17, and Eldering further discloses wherein the AMS transmits an acknowledgement to the ADS upon receipt of the advertisement and advertisement metadata.

Eldering teaches in paragraph [0085] and figure 5 an exemplary system for grouping TV subscribers into subgroups and delivering targeted ads thereto. The program stream is delivered to the Secure Correlation Server (SCS 540) [construed by the Examiner as the ADS or ad

selection system, since it selects ads for insertion into programming avails, programming consisting of recorded and live television shows, movies, etc.]. The SCS 540 also receives additional national ads 524 and local ads 526 from the national advertiser 520, and local ads 535 from the local advertisers 530 [the Examiner construes this transmission of ads to the SCS 540 as part of the AMS or advertisement management system]. The SCS 540 also receives subscriber profiles 555 from the SPS 550. The SCS 540 is configured to correlate ads with subscribers, so that ad effectiveness is increased.

Therefore, from the teaching of Eldering it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of delivering advertising through an interactive video distribution system of Hooks and the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga to include the targeted advertisement insertion performed by the Secure Correlation Server of Eldering in order for subscribers to receive ads that are more likely applicable to their life style, allow content providers to charge advertisers a premium for delivering targeted ads, and save money for advertisers because they only pay to deliver the ads to subscribers that most likely are interested in the ad (Eldering paragraph [0024]).

Claim 19: Hooks, Eldering and Liga disclose all the elements of Claim 1 and Hooks further discloses wherein the video server receives control commands from the user (col. 9, lines 9-19 and figures 1, 4 and 5 via the registration request is forwarded through set-top box 94 over video distribution medium 56 and through video server 60 to an input 107 of processor 74).

Claim 20: Hooks, Eldering and Liga disclose all the elements of Claim 19 and Hooks further discloses wherein the video server requests a new playlist from the AMS upon the receipt of a new program initiation command from the user (col. 10, lines 57-63 and figures 1 and 7 via task 132 causes processor 74 to provide a video still image to the digital media server element of video server 60).

Claim 23: Hooks, Eldering and Liga disclose all the elements of Claim 20, and Eldering further discloses wherein the AMS transmits a request to the ADS to select one or more local advertisements included in the program as originally broadcast.

Eldering teaches in paragraph [0086] and figure 5 that the Secure Correlation Server (SCS 540) creates presentation streams 545 that have the same programming but targeted ads in place of the default ad. The presentation streams 545 are delivered to the network operator 560, who in turn delivers them to the subscribers 580. The network operator 560 may deliver each presentation stream 545 to each subscriber 580 and an indication of which ad is designated for which subscriber 580 or may deliver only the appropriate presentation stream 545 to each subscriber 580.

Therefore, from the teaching of Eldering it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of delivering advertising through an interactive video distribution system of Hooks and the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga to include the targeted advertisement insertion performed by the Secure Correlation Server of Eldering in order for subscribers to receive ads that are more likely applicable to their life

style, allow content providers to charge advertisers a premium for delivering targeted ads, and save money for advertisers because they only pay to deliver the ads to subscribers that most likely are interested in the ad (Eldering paragraph [0024]).

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hooks et al. (US 6169542 B1) in view of Eldering et al. (US PgPub 20020123928 A1) and Liga et al. (US PgPub 20030154128 A1) as applied to Claim 15 above, and further in view of Nathaniel (US 20030130887 A1) and Zizzamia et al. (US 20020161609 A1).

Claim 16: Hooks, Eldering, and Liga disclose all the elements of Claim 15, but do not disclose wherein the external targeting system is selected from the group comprising a PRIZM system and an AXCIOM system.

Nathaniel teaches in paragraph [0023] lines 33-34 that network data on impressions and click-throughs can be estimated based on zip code based data from Claritas PRIZM codes.

Therefore, from the teaching of Nathaniel it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of delivering advertising through an interactive video distribution system of Hooks in combination with the system of targeting ads to subscribers based on privacy-protected subscriber profiles of Eldering and the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga to include the non-deterministic method and system for the optimization of a targeted content delivery of Nathaniel in order to schedule delivery of targeted

content to network devices in an optimal manner that is flexible and can be fine-tuned on the fly (Nathaniel paragraph [0006] lines 1-4).

Zizzamia teaches in paragraph [0037] lines 1-3 that external data sources also include business owner household level demographics from data providers such as AXCIOM or INFO-USA.

Therefore, from the teaching of Zizzamia it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of delivering advertising through an interactive video distribution system of Hooks in combination with the system of targeting ads to subscribers based on privacy-protected subscriber profiles of Eldering and the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga and the non-deterministic method and system for the optimization of a targeted content delivery of Nathaniel to include the quantitative system and method that employs data sources external to an insurance company to generate a statistical model of Zizzamia in order to use external data sources to provide higher demographic accuracy (Zizzamia paragraph [0011] lines 2-5).

9. Claim 32 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering et al. (US PgPub 20020123928 A1) in view of Liga et al. (US PgPub 20030154128 A1).

Claim 32: Eldering disclose all the elements of Claim 31, but does not disclose wherein identifying is conducted according to one or more of a set consisting of SCTE 35 cue packets, DTMF cues, contact closures triggered by an analog signal, network messages from an insertion system and network messages from a stat-mux/splicer.

Liga teaches in paragraph [0023] lines 10-13 that embedded data may be transmitted as separate data packets in the data stream comprising the video signal, or in network signals such as Society of Cable Telecommunications Engineers (SCTE) standards, such as the DVS 253 standard for cueing advertisements. Liga et al. also teaches in paragraph [0082] lines 1-7 detecting advertisements either by receiving the embedded data, or receiving a signal indicating the cessation of the program and beginning of an advertisement, where this signal may be, for example, a dual-tone frequency modulated (DTMF) signal, a DVS 253 or 380 signal, or any form of embedded command data of an analog or digital nature. Liga et al. also teaches in figure 3 and in paragraph [0042] lines 9-11 that once modulated, the digital signals are combined with standard network channel broadcasts by the multiplexor 340

Therefore, from the teaching of Liga it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of segmenting local advertising by identifying indicators of Eldering to include the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga in order to use targeted ads in conjunction with consumer profile information to reach interested consumers (Liga Abstract lines 3-4).

Claim 43: Eldering discloses a computerized method for delivering local advertising to a client in a video distribution system, the method comprising:

electronically receiving multiple zoned copies of a given program, each zoned copy containing proper local advertising for a given zone (paragraph [0158] and Fig. 30 via groups may be formed based on the layout of a cable TV plant; a zone or super head-end 3000 receives national programming via satellite or other means from content providers and distributes national programming to a plurality of head-ends 3010; each HE 3010 serves a number of nodes 3020; each node 3020 serves a plurality of subscribers 3030 via a plurality of branches 3040 from each node 3020);

recording a zoned copy of a given program containing proper local advertising for each zone the video distribution system services (paragraph [0025] via monitoring subscriber interaction with the television and aggregating the data to form the viewing characteristics, where the subscriber interaction includes at least some subset of channel changes, volume changes, EPG activation and **record** commands);

electronically determining, by using a programmable microprocessor, the zone in which the client requesting a program is located; and transmitting a zoned copy of the requested program to the client (paragraphs [0169]-[0171] and figures 37B, 38A-C and 39 via a node receiving multiple presentation streams at different frequencies, where the presentation streams can be transmitted using several methods and then mapped to the appropriate branch within the node; and at the frequency remapping module 3370, different digital signals are re-mapped such that multiple versions of the digital channels containing alternate programming or advertising



sequences are re-mapped for transmission to the individual branch zones; and different digital presentation streams being transmitted at different wavelengths).

However, Eldering does not disclose electronically determining, by using a programmable microprocessor, whether the proper local advertising contained in the zoned copy of the requested program has expired and replacing the expired proper local advertising with a replacement advertisement; and

Liga teaches in paragraph [0023] lines 10-13 that embedded data may be transmitted as separate data packets in the data stream comprising the video signal, or in network signals such as Society of Cable Telecommunications Engineers (SCTE) standards, such as the DVS 253 standard for cueing advertisements. Liga et al. also teaches in paragraph [0082] lines 1-7 detecting advertisements either by receiving the embedded data, or receiving a signal indicating the cessation of the program and beginning of an advertisement, where this signal may be, for example, a dual-tone frequency modulated (DTMF) signal, a DVS 253 or 380 signal, or any form of embedded command data of an analog or digital nature. Liga et al. also teaches in figure 3 and in paragraph [0042] lines 9-11 that once modulated, the digital signals are combined with standard network channel broadcasts by the multiplexor 340

Therefore, from the teaching of Liga it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of segmenting local advertising by identifying indicators of Eldering to include the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga in order to use targeted ads in conjunction with consumer profile information to reach interested consumers (Liga Abstract lines 3-4).

10. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering et al. (US PgPub 20020123928 A1) in view of Cowan et al. (US Pat 6941573 B1).

Claim 33: Eldering discloses all the elements of Claim 24, but does not disclose the invention comprising:

determining if a given correctly zoned local advertisement has expired; and if the correctly zoned local advertisement has expired, generating a playlist utilizing a replacement local advertisement and the requested program.

Cowan teaches in col. 4 lines 35-40 that substitute advertising can then be determined by comparing consumer purchase data collected from selected stores associated with zones receiving the substitute advertising with consumer data collected from selected stores associated with zones receiving normal advertising.

Therefore, from the teaching of Cowan it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for delivering local advertising to a client in a video distribution system of Eldering to include the television distribution system for signal substitution of Cowan in order to provide a market research signal substitution system which accurately represents the demographics of the community being served and which avoids the problems, costs and user resistance of an individually addressed arrangement (Cowan col. 2 lines 12-16).

11. Claims 34-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lumley et al. (US Pat 6588013 B1) in view of Hooks et al. (US Pat 6169542 B1) and Liga et al. (US PgPub 20030154128 A1).

Claim 34: Lumley discloses a system for delivering local advertising to a client in a video distribution system, the system comprising:

a client device operative to perform an action that invokes a request for a program (*Abstract* via an interactive electronic television program guide);

but Lumley only discloses in part an advertisement management system (AMS) operative to collection information regarding the request and generate a playlist utilizing one or more geographically zoned local advertisements and the requested program, the AMS being further operative to determine whether the one or more geographically zoned advertisements have expired and to request one or more replacement advertisements for the one or more geographically zoned advertisements (*Abstract* via promotional material is selected for distribution according to a promotional material selection algorithm); and

Hooks teaches in col. 2, lines 37-63 and figure 1 transmitting an advertisement to an interactive video subscriber unit in connection with an interactive video program and receiving, at the head end facility over a return path, a request to register the advertisement in a menu ... generating an entry for the advertisement in the menu, communicating to the subscriber unit, the menu in a video still image, and obtaining, at the head end facility over the return path, a selection request for the entry [the Examiner construes relevant components of the head-end facility 58, e.g. the processor 74, web browser 90, menu database 79, modem bank 82, PSTN 84,

etc. to be the AMS (advertising management system), and the replacement process to consist of subscribers adding and removing menu items from the menu database].

Therefore, from the teaching of Hooks it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the promotional material distribution system with automatic updating of promotional material selection algorithms of Lumley to include the method of delivering advertising through an interactive video distribution system of Hooks in order to provide a method and system for effectively delivering advertising to viewers (Hooks col. 2, lines 25-27); and

However, neither Lumley nor Hooks definitively disclose the AMS being further operative to determine whether the one or more geographically zoned advertisements have expired.

Liga teaches in *Abstract* a method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer. Liga then teaches in paragraph [0009] a method and system to freshen or replace stale advertising. An advertisement may be encoded or embedded with a hidden time or date stamp indicating when an advertisement expires. As the PVR [personal video recorder] plays back a recorded video signal, it may check the embedded information before an advertisement is actually shown. Should the embedded stamp indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Liga further teaches in paragraph [0024] the freshening or replacement of stale advertising. Each advertisement may again be encoded or embedded with hidden information. In this embodiment, the hidden information is typically a time or date stamp indicating when an advertisement expires. As the PVR plays back a recorded video signal, it may check the embedded information as each

advertisement is queued for playback. Should the embedded information indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Updated advertisements may either be requested from and transmitted by a server located at a cable headend or other transmission source, or may be stored locally on the PVR itself.

Therefore, from the teaching of Liga it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the promotional material distribution system with automatic updating of promotional material selection algorithms of Lumley and the method of delivering advertising through an interactive video distribution system of Hooks to include the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga in order to provide an improved method and system for displaying advertisements in conjunction with a personal video recorder (Liga paragraph [0005]); and

Lumley then discloses a video server operative to receive the playlist and deliver the local advertisement and program to the client for decoding and playback (col. 11, lines 31-36 via if desired, the interactive application may be implemented using a client-server architecture in which the primary processing power for the application is provided by a server located at, for example, the television distribution facility or the main facility and user television equipment acts as a client processor).

Claim 35: Lumley, Hooks and Liga disclose all the elements of Claim 34, and Lumley further discloses wherein the AMS is operative to collect information regarding the requesting client (col. 6, lines 57-65 and Fig. 1 via television distribution facility 16 has promotional event

recorder 44 for maintaining a promotional event log which is provided to main facility 12 over communications link 15).

Claim 36: Lumley, Hooks and Liga disclose all the elements of Claim 34, and Lumley further discloses wherein the AMS is operative to collect information regarding the requested program (col. 3, lines 20-40 via a promotional event log is maintained by the television distribution facility which may include entries for the time of day a promotional event was distributed or displayed, attributes of how the promotional event was performed, which script version was active at the time, the first choice of promotional event, the title of the promotional event, the actual file (e.g., text, graphic, audio or video) that was utilized in the promotional event, actual duration of the promotional event in milliseconds and frames, expected duration, display attributes, actual computed overlay (e.g., channel 16 at 4:00 P.M.), and any special play effect) .

Claim 37: Lumley, Hooks and Liga disclose all the elements of Claim 34, and Lumley further discloses wherein the video server records one copy of a given program for each local advertising zone that the video distribution system services (col. 8, line 64 through col. 9, line 14 and Fig. 4 via promotional event log analyzer 30 may make changes to a promotional material selection algorithm if the algorithm does not provide for optimal promotional material selection, such as having certain promotional events in certain time slots for different time zones, having particular promotional events sent to television distribution facilities of a certain service configuration).

Claim 38: Lumley, Hooks and Liga disclose all the elements of Claim 37, and Lumley further discloses wherein the video server segments local advertising out of each program and marks the segmented local advertising with a zone identifier (col. 1, line 65 through col. 2, line 9 via global promotional videos are also generated by a main facility and stored on laserdiscs and are provided to cable system headends via a suitable mail carrier in addition to the real-time stream of videos; the global promotional videos are displayed until a "local segment" occurs; during the "local segment" the headends select promotional videos from the laserdiscs according to a promotional philosophy or playlist).

Claim 39: Lumley, Hooks and Liga disclose all the elements of Claim 38, and Lumley further discloses wherein the video server collects a zone identifier for the zone in which the client resides (col. 3, lines 41-61 via a promotional event log analyzer at the main facility is programmed to automatically determine if promotional material is being selected optimally based on the promotional event log, by way of a desirable occurrences database having a set of rules that may, for example include: having a large number of promotions of a particular theme during a particular time slot, having certain promotional events in certain time slots for different time zones, having particular promotional events sent to television distribution facilities of a certain service configuration).

Claim 40: Lumley, Hooks and Liga disclose all the elements of Claim 37, and Lumley discloses wherein the video server segments the local advertising by identifying indicators for the local advertising (col. 1, line 65 through col. 2, line 9 via global promotion videos are displayed until a “local segment” occurs; and col. 6, lines 8-20 and Fig. 2 via an illustrative promotional material display screen 80 may be divided into video promotion area 82, text promotion area 84, and program listings area 86 or any combination thereof).

Claim 41: Lumley, Hooks and Liga disclose all the elements of Claim 40, and Liga discloses wherein the indicators are selected from a set consisting of SCTE 35 cue packets, DTMF cues, contact closures triggered by an analog signal, network messages from an insertion system and network messages from a stat-mux/splicer.

Liga teaches in paragraph [0023] lines 10-13 that embedded data may be transmitted as separate data packets in the data stream comprising the video signal, or in network signals such as Society of Cable Telecommunications Engineers (SCTE) standards, such as the DVS 253 standard for cueing advertisements. Liga et al. also teaches in paragraph [0082] lines 1-7 detecting advertisements either by receiving the embedded data, or receiving a signal indicating the cessation of the program and beginning of an advertisement, where this signal may be, for example, a dual-tone frequency modulated (DTMF) signal, a DVS 253 or 380 signal, or any form of embedded command data of an analog or digital nature. Liga et al. also teaches in figure 3 and in paragraph [0042] lines 9-11 that once modulated, the digital signals are combined with standard network channel broadcasts by the multiplexor 340.



Therefore, from the teaching of Liga it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the local advertising segmentation of Lumley and the method of delivering advertising through an interactive video distribution system of Hooks to include the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga in order to use targeted ads in conjunction with consumer profile information to reach interested consumers (Liga Abstract lines 3-4).

12. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering et al. (US PgPub 20020123928 A1) in view of Liga et al. (US PgPub 20030154128 A1) as applied to Claim 43 above, and further in view of Cowan et al. (US Pat 6941573 B1).

Claim 44: Eldering and Liga disclose all the elements of Claim 43, and Liga discloses in part the invention comprising: receiving a request for a program from the client; and selecting the properly zoned copy of the requested program containing proper local advertising.

Liga teaches in *Abstract* a method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer. Liga then teaches in paragraph [0009] a method and system to freshen or replace stale advertising. An advertisement may be encoded or embedded with a hidden time or date stamp indicating when an advertisement expires. As the PVR [personal video recorder] plays back a recorded video signal, it may check the embedded information before an advertisement is actually shown. Should the embedded stamp indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Liga further teaches in paragraph [0024] the freshening or replacement of stale advertising. Each advertisement may

again be encoded or embedded with hidden information. In this embodiment, the hidden information is typically a time or date stamp indicating when an advertisement expires. As the PVR plays back a recorded video signal, it may check the embedded information as each advertisement is queued for playback. Should the embedded information indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Updated advertisements may either be requested from and transmitted by a server located at a cable headend or other transmission source, or may be stored locally on the PVR itself. Liga then teaches in paragraph [0023] lines 10-13 that embedded data may be transmitted as separate data packets in the data stream comprising the video signal, or in network signals such as Society of Cable Telecommunications Engineers (SCTE) standards, such as the DVS 253 standard for cueing advertisements. Liga also teaches in paragraph [0082] lines 1-7 detecting advertisements either by receiving the embedded data, or receiving a signal indicating the cessation of the program and beginning of an advertisement, where this signal may be, for example, a dual-tone frequency modulated (DTMF) signal, a DVS 253 or 380 signal, or any form of embedded command data of an analog or digital nature. Liga then teaches in figure 3 and in paragraph [0042] lines 9-11 that once modulated, the digital signals are combined with standard network channel broadcasts by the multiplexor 340.

Therefore, from the teaching of Liga it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for delivering local advertising to a client in a video distribution system of Eldering to include the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a

consumer of Liga in order to use targeted ads in conjunction with consumer profile information to reach interested consumers (Liga Abstract lines 3-4).

Cowan teaches in col. 4 lines 35-40 that substitute advertising can then be determined by comparing consumer purchase data collected from selected stores associated with zones receiving the substitute advertising with consumer data collected from selected stores associated with zones receiving normal advertising.

Therefore, from the teaching of Cowan it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the targeting ads to subscribers of Eldering and the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga to include the television distribution system for signal substitution of Cowan in order to provide a market research signal substitution system which accurately represents the demographics of the community being served and which avoids the problems, costs and user resistance of an individually addressed arrangement (Cowan col. 2 lines 12-16).

13. Claims 45-50, 52 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eldering et al. (US PgPub 20020123928 A1) in view of Cowan et al. (US Pat 6941573 B1) and Liga et al. (US PgPub 20030154128 A1).

Claim 45: Eldering discloses a computerized method for delivering local advertising to a client in a video distribution system, the method comprising:

electronically creating a playlist with an identifier identifiers for a given program and one or more national advertisements (paragraph [0092] and figure 7 via interaction with an electronic or interactive program guide (EPG) 718 and viewing characteristics vectors (VCPS 700) monitoring; and if the VCPS 700 was monitoring viewer interaction with a computer, interactive TV or other device connected to the Internet, the subscriber interactions may also include sites visited, click throughs, book marks and other commands applicable to Internet surfing);

determining, by using a programmable microprocessor, a geographical zone in which a requesting client resides (paragraph [0116] and figures 5 and 17B via demographic segment information can be used in the exemplary TV delivery environment by combining it with the network operator's billing database as shown in Fig. 17B);

but Eldering does not disclose associating one or more local advertisements with the given program wherein the one or more local advertisements include a zone identifier proximate to the geographical zone;

Cowan teaches in col. 4, lines 15-49 use of the consumer community at large as subjects of consumer analysis when normal and substitute programs are presented on the television receiver of a community. Normal and substitute signals are distributed to separate zones of the community. Particular stores are selected to represent a particular community, stores selected to be representative of the community. The stores selected are those in which the shoppers are preponderantly from the same zone. Such a selection may be made based, for example, on the demographic data provided by a sample of the consumers themselves and/or it may be made

based on a fixed perimeter drawn around the stores. Once the stores, and their included consumer information collection systems are identified, data associating particular stores with particular zones is then recorded in the market research computer. When a test is performed in which substitute advertising is transmitted to particular zones, the consumer purchase data from the selected stores of the market study area is collected. The significance of the substitute advertising can then be determined by comparing consumer purchase data collected from selected stores associated with zones receiving the substitute advertising with consumer data collected from selected stores associated with zones receiving normal advertising.

Therefore, from the teaching of Cowan it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the interaction with an electronic or interactive program guide and viewing characteristics vectors monitoring of Eldering to include the associating of advertising with particular zones of Cowan in order to provide a market research signal substitution system which accurately represents the demographics of the community being served (col. 2, lines 12-16).

Eldering further discloses in part determining whether the geographically zoned local advertisement has expired and replacing an expired geographically zoned local advertisement with a replacement advertisement (paragraph [0122] and figures 18-20 via based on the type of programs viewed, times watched, channel change patterns, volume levels or other subscriber activities the heuristic rules could define the probability of a subscriber eating fast food, the type of ads they are receptive to (i.e., emotional, funny, abrasive), or the probability of the subscriber paying for a particular service (i.e., car or house cleaning, oil change) as opposed to doing it themselves [the Examiner construes the term "times watched" to include time of day/night

intervals as well as how frequently a particular program is watched in order to determine when to place a particular advertisement]; and paragraph [0184] via in addition to the ads it is likely that an ad queue defining some characteristics of when ads should displayed is also sent to the PVR and stored thereon; based on the ad queues the ads would be substituted during avails [the Examiner construes the recitation of "... an ad queue defining sum characteristics of when ads should be displayed ..." as a determination of when to place a particular ad]; paragraph [0086] and figure 5 via a secure correlation server creates presentation streams that have the same programming but include targeted advertisements in place of the default advertisement [the Examiner construes the action of the secure correlation server as the expiring of the default advertisement in favor of the selected targeted advertisement]); and

However, Eldering does not fully disclose determining whether the geographically zoned local advertisement has expired and replacing an expired geographically zoned local advertisement with a replacement advertisement;

Liga teaches in *Abstract* a method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer. Liga then teaches in paragraph [0009] a method and system to freshen or replace stale advertising. An advertisement may be encoded or embedded with a hidden time or date stamp indicating when an advertisement expires. As the PVR [personal video recorder] plays back a recorded video signal, it may check the embedded information before an advertisement is actually shown. Should the embedded stamp indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Liga further teaches in paragraph [0024] the freshening or replacement of stale advertising. Each advertisement may again be encoded or embedded with hidden information. In this embodiment, the hidden

information is typically a time or date stamp indicating when an advertisement expires. As the PVR plays back a recorded video signal, it may check the embedded information as each advertisement is queued for playback. Should the embedded information indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Updated advertisements may either be requested from and transmitted by a server located at a cable headend or other transmission source, or may be stored locally on the PVR itself. Liga teaches in paragraph [0023] lines 10-13 that embedded data may be transmitted as separate data packets in the data stream comprising the video signal, or in network signals such as Society of Cable Telecommunications Engineers (SCTE) standards, such as the DVS 253 standard for cueing advertisements. Liga also teaches in paragraph [0082] lines 1-7 detecting advertisements either by receiving the embedded data, or receiving a signal indicating the cessation of the program and beginning of an advertisement, where this signal may be, for example, a dual-tone frequency modulated (DTMF) signal, a DVS 253 or 380 signal, or any form of embedded command data of an analog or digital nature. Liga also teaches in figure 3 and in paragraph [0042] lines 9-11 that once modulated, the digital signals are combined with standard network channel broadcasts by the multiplexor 340.

Therefore, from the teaching of Liga it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for delivering local advertising to a client in a video distribution system of Eldering and the associating of advertising with particular zones of Cowan to include the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga in order to

use targeted ads in conjunction with consumer profile information to reach interested consumers (Liga Abstract lines 3-4).

Eldering then discloses electronically adding identifiers for one or more local advertisements to the playlist based on the determined zone (paragraph [0087] and figure 5 via Secure Correlation Server (SCS 540) may create subgroups based on input from the SPS 550 and then match ads to those groups, or may receive ads having specific criteria and form groups based on the specific desires of the advertisers); and

delivering the playlist to a video server (paragraph [0086] and figure 5 via the SCS 540 creates presentation streams 545 that have the same programming but targeted ads in place of the default ad; the presentation streams 545 are delivered to the network operator 560; the network operator 560 delivers the presentation streams 545 to the subscribers 580 via the access network 570).

Claim 46: Eldering, Cowan and Liga disclose all the elements of Claim 45, and Eldering further discloses the invention comprising the video server transmitting data identified in the playlist to a client for decoding and display (paragraph [0086] and figure 5 via the SCS 540 creates presentation streams 545 that have the same programming but targeted ads in place of the default ads; the presentation streams 545 are delivered to the network operator 56, and the network operator 560 delivers the presentation streams 545 to the subscribers 580 via the access network 570).



Claim 47: Eldering, Cowan and Liga disclose all the elements of Claim 45, and Eldering further discloses comprising: calculating the zone in which a client resides; and selecting the proper local advertising for the zone in which the client resides (paragraph [0164] and figure 35 via nodes are clustered together based on a correlation and each cluster of nodes receives a different presentation stream, and each cluster would have a cluster profile computed and could receive targeted ads based on the cluster profile).

Claim 48: Eldering, Cowan and Liga disclose all the elements of Claim 45, and Eldering further discloses the invention comprising:

receiving a copy of a given program for each zone that the video distribution system services (paragraph [0166] and figure 36 via clustering nodes can be used to create targeted channel lineups (TCL) that may include in addition to different presentation streams, different data/voice signals and different video on demand (VOD) signals are transmitted to the appropriate cluster of nodes, and each cluster of nodes receives its properly allocated TCL);

segmenting the received program into program content, national advertising and local advertising (paragraph [0166] and figure 36 via an AIS 3600 creates three separate data signals, and a VOD server creates three separate VOD signals); and

discarding all but one copy of zoned programming with program content and national advertising (paragraph [0166] and figure 36 via nodes N1, N3, N6 and N7 receive TCL-A, nodes N2 and N5 receive TCL-B, and nodes N4 and N8 receive TCL-C).

Claim 49: Eldering discloses a computerized method for delivering local advertising to a client in a video distribution system, the method comprising:

electronically receiving a copy of a given program for each zone that the video distribution system services (paragraph [0166] and figure 36 via clustering nodes can be used to create targeted channel lineups (TCL) that may include in addition to different presentation streams, different data/voice signals and different video on demand (VOD) signals are transmitted to the appropriate cluster of nodes, and each cluster of nodes receives its properly allocated TCL);

segmenting the program into program content, national advertising and local advertising; retaining the program content and discarding the national and local advertising (paragraph [0085] and figure 5 via the national advertiser 520 delivers national ads 522 to the content provider 510 to generate and deliver program streams; the program stream is delivered to the SCS 540, which also receives additional national ads 524 and local ads 520; the SCS 540 also receives subscriber profiles 555 from the SPS 550; the SCS 540 determines which ads, both additional national ads 524 and local ads 526 and 535 should be substituted for the default ad within the program stream 515);

but Eldering only discloses in part receiving a request for the program from a client in a given geographical zone;

Cowan teaches in col. 5, lines 39-55 and figure 1 a general block diagram showing a targeted television system in accordance with the present invention for delivering cable television signals to a viewer community represented by irregular area 101. Each zone, however, includes a number of geographically proximate subscribers and is referred to herein as being

substantially contiguous. Further, it is possible that over time the zone boundaries will change as new subscribers request cable service and other subscribers give up their prior service.

Therefore, from the teaching of Cowan it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the delivery and segmentation of programming of Eldering to include the geographical zones and requests of Cowan in order to provide a market research signal substitution system which accurately represents the demographics of the community being served (Cowan col. 2, lines 12-16).

but Eldering does not disclose associating one or more local advertisements with the request for the program wherein the one or more local advertisements include a zone identifier proximate to the given geographical zone;

Cowan teaches in col. 4, lines 15-49 use of the consumer community at large as subjects of consumer analysis when normal and substitute programs are presented on the television receiver of a community. Normal and substitute signals are distributed to separate zones of the community. Particular stores are selected to represent a particular community, stores selected to be representative of the community. The stores selected are those in which the shoppers are preponderantly from the same zone. Such a selection may be made based, for example, on the demographic data provided by a sample of the consumers themselves and/or it may be made based on a fixed perimeter drawn around the stores. Once the stores, and their included consumer information collection systems are identified, data associating particular stores with particular zones is then recorded in the market research computer. When a test is performed in which substitute advertising is transmitted to particular zones, the consumer purchase data from the selected stores of the market study area is collected. The significance of the substitute advertising

can then be determined by comparing consumer purchase data collected from selected stores associated with zones receiving the substitute advertising with consumer data collected from selected stores associated with zones receiving normal advertising.

Therefore, from the teaching of Cowan it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the delivery and segmentation of programming of Eldering to include the associating of advertising with particular zones of Cowan in order to provide a market research signal substitution system which accurately represents the demographics of the community being served (col. 2, lines 12-16).

Eldering further discloses in part determining whether the geographically zoned local advertisement has expired and replacing an expired geographically zoned local advertisement with a replacement advertisement (paragraph [0122] and figures 18-20 via based on the type of programs viewed, times watched, channel change patterns, volume levels or other subscriber activities the heuristic rules could define the probability of a subscriber eating fast food, the type of ads they are receptive to (i.e., emotional, funny, abrasive), or the probability of the subscriber paying for a particular service (i.e., car or house cleaning, oil change) as opposed to doing it themselves [the Examiner construes the term "times watched" to include time of day/night intervals as well as how frequently a particular program is watched in order to determine when to place a particular advertisement]; and paragraph [0184] via in addition to the ads it is likely that an ad queue defining some characteristics of when ads should displayed is also sent to the PVR and stored thereon; based on the ad queues the ads would be substituted during avails [the Examiner construes the recitation of "... an ad queue defining sum characteristics of when ads should be displayed ..." as a determination of when to place a particular ad]; paragraph [0086]

and figure 5 via a secure correlation server creates presentation streams that have the same programming but include targeted advertisements in place of the default advertisement [the Examiner construes the action of the secure correlation server as the expiring of the default advertisement in favor of the selected targeted advertisement]); and

However, Eldering does not fully disclose determining whether the geographically zoned local advertisement has expired and replacing an expired geographically zoned local advertisement with a replacement advertisement

Liga teaches in *Abstract* a method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer. Liga then teaches in paragraph [0009] a method and system to freshen or replace stale advertising. An advertisement may be encoded or embedded with a hidden time or date stamp indicating when an advertisement expires. As the PVR [personal video recorder] plays back a recorded video signal, it may check the embedded information before an advertisement is actually shown. Should the embedded stamp indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Liga further teaches in paragraph [0024] the freshening or replacement of stale advertising. Each advertisement may again be encoded or embedded with hidden information. In this embodiment, the hidden information is typically a time or date stamp indicating when an advertisement expires. As the PVR plays back a recorded video signal, it may check the embedded information as each advertisement is queued for playback. Should the embedded information indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Updated advertisements may either be requested from and transmitted by a server located at a cable headend or other transmission source, or may be stored locally on the PVR itself. Liga teaches in

paragraph [0023] lines 10-13 that embedded data may be transmitted as separate data packets in the data stream comprising the video signal, or in network signals such as Society of Cable Telecommunications Engineers (SCTE) standards, such as the DVS 253 standard for cueing advertisements. Liga also teaches in paragraph [0082] lines 1-7 detecting advertisements either by receiving the embedded data, or receiving a signal indicating the cessation of the program and beginning of an advertisement, where this signal may be, for example, a dual-tone frequency modulated (DTMF) signal, a DVS 253 or 380 signal, or any form of embedded command data of an analog or digital nature. Liga also teaches in figure 3 and in paragraph [0042] lines 9-11 that once modulated, the digital signals are combined with standard network channel broadcasts by the multiplexor 340.

Therefore, from the teaching of Liga it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for delivering local advertising to a client in a video distribution system of Eldering and the associating of advertising with particular zones of Cowan to include the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga in order to use targeted ads in conjunction with consumer profile information to reach interested consumers (Liga Abstract lines 3-4).

Eldering further discloses electronically creating a playlist identifying the programming content (paragraph [0166] and figure 36 via clustering nodes in order to create targeted channel lineups (TCL), and the appropriate sets of signals are then combined together (i.e., ESPN-A, DATA-A and VOD-A) to form TCLs);

calculating, by using a programmable microprocessor, the a program advertising zone in which the requesting client resides (paragraph [0164] and figure 35 via nodes are clustered together based on a correlation and each cluster of nodes receives a different presentation stream, and each cluster would have a cluster profile computed and could receive targeted ads based on the cluster profile);

adding identifiers for advertising to the playlist based on the zone in which the client resides (*abstract* via correlating ad profiles to subscriber/subscriber group profiles and selecting targeted advertisements for the subscribers/subscriber groups based on the correlation); and

delivering the playlist to a video server (paragraph [0086] and figure 5 via the SCS 540 creates presentation streams 545 that have the same programming but targeted ads in place of the default ad; the presentation streams 545 are delivered to the network operator 560; the network operator 560 delivers the presentation streams 545 to the subscribers 580 via the access network 570).

Claim 50: Eldering discloses a computerized method for delivering local advertising to a client in a video distribution system, the method comprising:

receiving a playlist identifying programming and advertising information (paragraph [0092] and figure 7 via in generating one or more viewing characteristic vectors, the VCPS 700 receives input from the subscriber 710 in the form of commands from a subscriber interface device, such as a remote control);

transmitting video data identified in the playlist to a client operative to decode and display the video data (paragraph [0073] and figure 1 via the network operator 140 transmits the program stream (with approximately 20% of the national ads 125 replaced with local ads 128, 135) 145 to the subscribers 160 via the access network 150; the access network 150 may be a cable TV (CTV) network, a Switched Digital Video (SDV) network or other networks now known or later discovered and may have a hybrid fiber-coax (BFC) architecture, a satellite-based architecture, an Internet-based architecture, digital subscriber line (xDSL) architecture, fiber to the curb (FTTC) or fiber to the home (FTTH), or other architectures now known or later discovered);

electronically receiving a control command from the client (paragraph [0092] and figure 7 via the VCPS 700 receives input from the subscriber 710 in the form of commands from a subscriber interface device, such as a remote control);

but Eldering does not disclose associating one or more local advertisements with the control command from the client wherein the one or more local advertisements include a zone identifier proximate to where the client is located;

Cowan teaches in col. 4, lines 15-49 use of the consumer community at large as subjects of consumer analysis when normal and substitute programs are presented on the television receiver of a community. Normal and substitute signals are distributed to separate zones of the community. Particular stores are selected to represent a particular community, stores selected to be representative of the community. The stores selected are those in which the shoppers are preponderantly from the same zone. Such a selection may be made based, for example, on the demographic data provided by a sample of the consumers themselves and/or it may be made



based on a fixed perimeter drawn around the stores. Once the stores, and their included consumer information collection systems are identified, data associating particular stores with particular zones is then recorded in the market research computer. When a test is performed in which substitute advertising is transmitted to particular zones, the consumer purchase data from the selected stores of the market study area is collected. The significance of the substitute advertising can then be determined by comparing consumer purchase data collected from selected stores associated with zones receiving the substitute advertising with consumer data collected from selected stores associated with zones receiving normal advertising.

Therefore, from the teaching of Cowan it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the delivery and segmentation of programming of Eldering to include the associating of advertising with particular zones of Cowan in order to provide a market research signal substitution system which accurately represents the demographics of the community being served (col. 2, lines 12-16).

Eldering further discloses in part determining whether the geographically zoned local advertisement has expired and replacing an expired geographically zoned local advertisement with a replacement advertisement (paragraph [0122] and figures 18-20 via based on the type of programs viewed, times watched, channel change patterns, volume levels or other subscriber activities the heuristic rules could define the probability of a subscriber eating fast food, the type of ads they are receptive to (i.e., emotional, funny, abrasive), or the probability of the subscriber paying for a particular service (i.e., car or house cleaning, oil change) as opposed to doing it themselves [the Examiner construes the term "times watched" to include time of day/night intervals as well as how frequently a particular program is watched in order to determine when to

place a particular advertisement]; and paragraph [0184] via in addition to the ads it is likely that an ad queue defining some characteristics of when ads should displayed is also sent to the PVR and stored thereon; based on the ad queues the ads would be substituted during avails [the Examiner construes the recitation of "... an ad queue defining sum characteristics of when ads should be displayed ..." as a determination of when to place a particular ad]; paragraph [0086] and figure 5 via a secure correlation server creates presentation streams that have the same programming but include targeted advertisements in place of the default advertisement [the Examiner construes the action of the secure correlation server as the expiring of the default advertisement in favor of the selected targeted advertisement]); and

However, Eldering does not fully disclose determining whether the geographically zoned local advertisement has expired and replacing an expired geographically zoned local advertisement with a replacement advertisement

Liga teaches in *Abstract* a method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer. Liga then teaches in paragraph [0009] a method and system to freshen or replace stale advertising. An advertisement may be encoded or embedded with a hidden time or date stamp indicating when an advertisement expires. As the PVR [personal video recorder] plays back a recorded video signal, it may check the embedded information before an advertisement is actually shown. Should the embedded stamp indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Liga further teaches in paragraph [0024] the freshening or replacement of stale advertising. Each advertisement may again be encoded or embedded with hidden information. In this embodiment, the hidden information is typically a time or date stamp indicating when an advertisement expires. As the

PVR plays back a recorded video signal, it may check the embedded information as each advertisement is queued for playback. Should the embedded information indicate that an advertisement is stale, the PVR may substitute an updated advertisement. Updated advertisements may either be requested from and transmitted by a server located at a cable headend or other transmission source, or may be stored locally on the PVR itself. Liga teaches in paragraph [0023] lines 10-13 that embedded data may be transmitted as separate data packets in the data stream comprising the video signal, or in network signals such as Society of Cable Telecommunications Engineers (SCTE) standards, such as the DVS 253 standard for cueing advertisements. Liga also teaches in paragraph [0082] lines 1-7 detecting advertisements either by receiving the embedded data, or receiving a signal indicating the cessation of the program and beginning of an advertisement, where this signal may be, for example, a dual-tone frequency modulated (DTMF) signal, a DVS 253 or 380 signal, or any form of embedded command data of an analog or digital nature. Liga also teaches in figure 3 and in paragraph [0042] lines 9-11 that once modulated, the digital signals are combined with standard network channel broadcasts by the multiplexor 340.

Therefore, from the teaching of Liga it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method for delivering local advertising to a client in a video distribution system of Eldering and the associating of advertising with particular zones of Cowan to include the method and system for displaying updated, targeted, and/or alternately formatted advertisements to a consumer of Liga in order to use targeted ads in conjunction with consumer profile information to reach interested consumers (Liga Abstract lines 3-4).

Eldering further discloses modifying, by using a programmable microprocessor, the playlist in accordance with the control command, wherein the advertising information identified in the playlist is updated (paragraph [0030] via targeted ads can be inserted into program streams using an Ad Insertion System (AIS); the AIS creates at least one presentation stream that is a program stream with an inserted targeted advertisement; a single presentation stream may be sent to the appropriate subscribers or multiple presentation streams may be sent and the appropriate presentation stream is selected by the node, the branch or the subscriber via a STB or PVR); and electronically transmitting video data identified in the modified playlist to the client (paragraph [0073] and figure 1 via the network operator 140 transmits the program stream (with approximately 20% of the national ads 125 replaced with local ads 128, 135) 145 to the subscribers 160 via the access network 150; the access network 150 may be a cable TV (CTV) network, a Switched Digital Video (SDV) network or other networks now known or later discovered and may have a hybrid fiber-coax (BFC) architecture, a satellite-based architecture, an Internet-based architecture, digital subscriber line (xDSL) architecture, fiber to the curb (FTTC) or fiber to the home (FTTH), or other architectures now known or later discovered).

Claims 52 and 53: Eldering, Cowan and Liga disclose all the elements of Claim 50, and Eldering further discloses the invention further comprising updating local and national advertising information (paragraph [0085] and figure 5 via the Secure Correlation Server (SCS) determines which ads (additional national ads 524, local ads 526, 535) should be substituted (targeted) for the ad (default ad) within the program stream 515 and which subscribers 580 should receive which ads).

***Response to Arguments***

14. Applicant's arguments with respect to claims 1, 34-40, 43, 45, 49 and 50 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are:

- a. Barnes, Jr. (US Pat 7487112 B2) teaches system, method, and computer program product for providing location based services and mobile e-commerce.
- b. Donian et al. (US PgPub 20040003398 A1) teaches a method and apparatus for the free licensing of digital media content.
- c. Kleyman et al. (US Pat 7454510 B2) teaches controlled relay of media streams across network perimeters.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADAM CHORNESKY whose telephone number is (571)270-5103. The examiner can normally be reached on Monday - Thursday 7:30 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynda Jasmin can be reached on 571-272-6782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Adam Chornesky/  
Examiner, Art Unit 3688  
May 4, 2010

/James W Myhre/  
Primary Examiner, Art Unit 3688